

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1-12 (canceled)

Claim 13 (currently amended): A system for recovering a portion of energy associated with an air separation unit for supplying oxygen rich gas to feed air of a blast furnace comprising:

an air separation unit and a blast furnace, wherein said blast furnace is fed by a blast furnace feed air stream, wherein a portion of said blast furnace feed air stream is delivered from said blast furnace feed stream forming a diverted stream, wherein said diverted stream is mixed with additional air to form a compressed air separation unit feed air stream, ~~wherein said compressed air separation unit feed air stream is further compressed thereby producing a further compressed air separation unit feed air stream,~~ wherein the air separation unit is fed with said further compressed air separation unit feed stream, from which an oxygen rich product is removed from the air separation unit and mixed with a remaining portion of the blast furnace feed air and fed to the blast furnace; removing a second gas from the air separation unit and heating the second gas by direct heat exchange with a combustion chamber; and, expanding the second gas to recover energy.

Claim 14 (previously presented): The system of claim 13 further comprising a heater, wherein the second gas is heated by heat exchange with a combustion product.

Claim 15 (previously presented): The system of claim 13 further comprising a combustion chamber, wherein the second gas is mixed with a combustion product from the combustion chamber.

Claim 16 (previously presented): The system of claim 13 further comprising a combustion chamber, wherein an off gas of the blast furnace is a fuel for a combustion chamber to heat the second gas.

Claim 17 (previously presented): The system of claim 13 further comprising a compressor, wherein additional air is compressed then mixed with the first portion..

Claim 18 (previously presented): The system of claim 13, wherein said further compressed air separation unit feed air stream is compressed to a pressure of about 20 bar.